



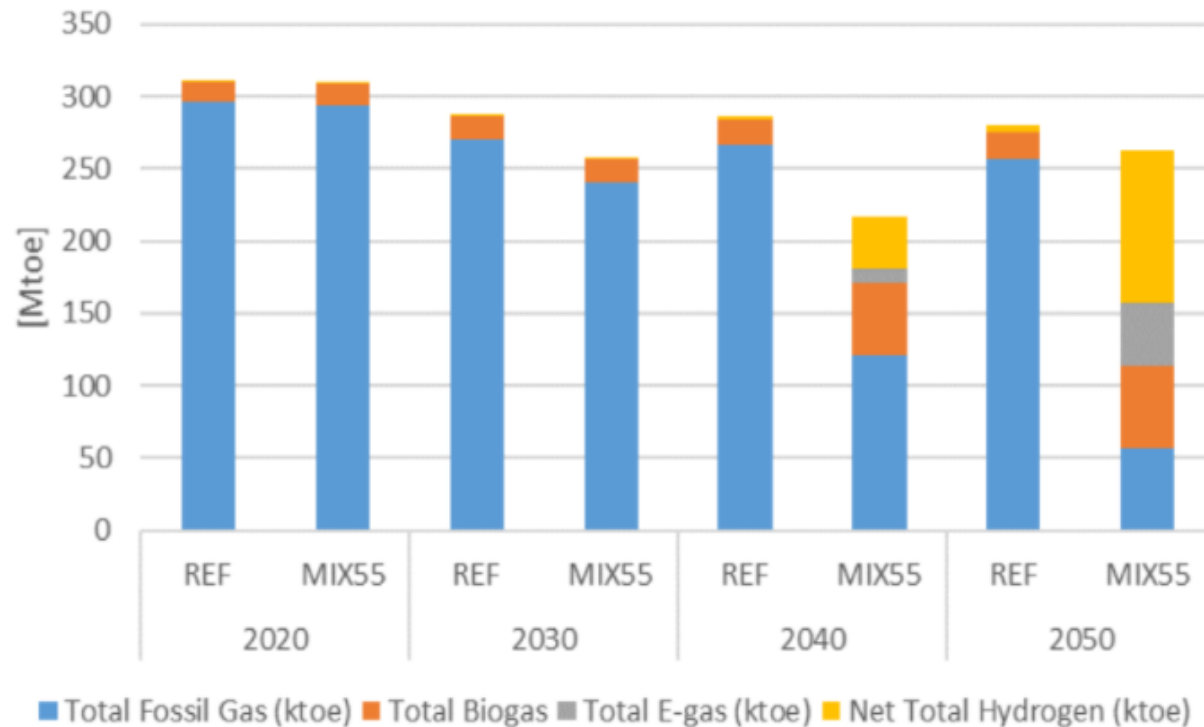
# EU Hydrogen and gas markets decarbonisation package

*ERRA Hydrogen Webinar 4 November*

*Justin Rosing DG ENER*

# The expected changes in the composition of gaseous energy carriers in the EU towards 2050

- Development of total consumption of gaseous energy carriers.
- MIX55 is scenario that is compatible with European Green Deal



Source: PRIMES

# The European Commission Hydrogen Strategy – a roadmap to 2050 [June 2020]

**2024**

- 6 **GW** of renewable hydrogen electrolyzers
- Replace **existing hydrogen production**
- Regulation for liquid hydrogen markets
- Planning of hydrogen infrastructure

**2030**

- **40 GW** of renewable hydrogen electrolyzers
- New applications in **steel and transport**
- Hydrogen for electricity balancing purposes
- Creation of “Hydrogen Valleys”
- Cross-border logistical infrastructure

**2050**

- Scale-up to **all hard-to-decarbonise sectors**
- Expansion of hydrogen-derived **synthetic fuels**
- EU-wide infrastructure network

# Hydrogen in 1<sup>st</sup> package of legislative proposals EC under Green Deal [June 2021]

- ✓ **Proposal for a revision of RED II:**
  - ✓ **Definition and certification of Renewable hydrogen**
  - ✓ **Sectoral targets:** 50% of total hydrogen consumption for energy and feedstock purposes in industry and 2.6% of the energy supplied to the transport sector by 2030
- ✓ **The revision of the Energy Taxation Directive:**
  - ✓ preferential minimum levels of taxation of renewable and low carbon hydrogen
- ✓ **Alternative fuels Directive**
  - ✓ Requires Member States to expand their network of hydrogen refuelling infrastructure
- ✓ **TEN-E Proposal [already launched in December 2020]**
  - ✓ Introduction of cross border hydrogen infrastructure projects as infrastructure category eligible for European funding.

## December 2021: Hydrogen and gas markets decarbonisation package

- Rethink current market rules as they are focussed on import of fossil gases.
- Two main pathways in the deployment of renewable and low carbon gases are likely to emerge in parallel and are expected to develop at different pace across the EU:
  - a hydrogen-based infrastructure will progressively complement the network for methane gases;
  - a methane-based infrastructure in which natural gas will progressively be replaced by other sources of methane (i.e. biomethane and synthetic methane, possibly occasionally blended with hydrogen).

# December 2021: Hydrogen and gas markets decarbonisation package

- The main aims of the Hydrogen and gas market decarbonisation package, are:
  - I. Facilitating the **integration of renewable and low-carbon gases** in the existing gas grid. This concerns biomethane injected at distribution level, gas quality in the existing networks, access of renewable gases to LNG terminals.
  - II. Enabling **the development of dedicated hydrogen infrastructure and market**, allowing hydrogen to become a key component of the energy sector.
  - III. Fostering more integrated **network planning** between electricity, gas and hydrogen networks
  - IV: Promoting **consumer engagement** in the RES and low-carbon gas markets.
- Key focus EU is on stimulating renewable hydrogen. Certification framework for renewable hydrogen included in proposal for revision of RED II. Hydrogen and gas markets decarbonisation package will however include terminology and certification of low-carbon hydrogen.
- Adoption and publication of this package planned for 14 December

# Thank you

[justin.rosing@ec.europa.eu](mailto:justin.rosing@ec.europa.eu)